

### Abstract

It is intended to provide a modified DNA or RNA, the cytoplasmic localization of which has been established, and an siRNA, which is localized in the cytoplasm, shows a high activity and, therefore, is appropriately usable as a genetic drug, by using a means generally applicable to DNAs of various types regardless of original tissues. A cytoplasmic localization DNA or RNA modified with a peptide can be constructed by modifying a DNA fragment with an active hydrogen-containing group on a solid support, fusing a peptide having an active hydrogen-containing group therewith and then removing from the solid support. On the other hand, a cytoplasmic localization siRNA can be obtained by introducing chemical modification group(s) into the 5'-terminus of at least one of the sense chain and the antisense chain constituting the double-strand, or a dangling end of the antisense chain, or both of them.